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Modern Approaches to Mathematical Modeling of River Runoff in the Territory of the European Part of Russia

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Abstract

© Published under licence by IOP Publishing Ltd. This article deals with the construction of mathematical models, which describe the dependence of the river runoff modulus in the territory of the European part of Russia on landscape-geographical conditions and anthropogenic load using modern regression-type statistical models. The obtained models reflect about 80% of the variability of the data and provide acceptable forecast accuracy. As well as these models reflect the main dependencies of river runoff on the conditions of its formation in the research scale. Spatial extrapolation of the river runoff values to the hydrologically unexplored areas of the European part of Russia is performed.

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